

**HUBUNGAN DIABETES MELITUS TIPE 2 DENGAN
KEJADIAN KATARAK DI POLI MATA RSPAD GATOT
SOEBROTO JAKARTA PERIODE JANUARI – DESEMBER
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ABSTRAK

Menurut WHO 2012, katarak merupakan penyebab utama kebutaan didunia dengan persentase 51%. Perkiraan insiden katarak adalah 0,1% per tahun atau setiap tahun di antara 1.000 orang terdapat seorang penderita baru katarak. Salah satu faktor yang menyebabkan terjadinya katarak adalah penyakit metabolik diabetes melitus. Hal ini terjadi karena kondisi hiperglikemia menyebabkan peningkatan tekanan osmotik lensa akibat akumulasi glukosa dan cairan aquous di dalam lensa sehingga menyebabkan kekeruhan lensa. Penelitian ini bertujuan untuk mengetahui hubungan diabetes melitus tipe 2 dengan kejadian katarak. Desain penelitian berupa *case control*. Kelompok kasus ialah pasien DM dengan katarak dan kelompok kontrol ialah pasien DM tanpa katarak. Jumlah sampel sebanyak 104 orang (52 orang kelompok kasus dan 52 orang kelompok kontrol) . Metode pengambilan sampel dengan *non-probability sampling* teknik *purposive sampling*. Analisis data menggunakan Uji *Chi-Square* dan uji alternatif Uji *Fisher*. Hasil penelitian ialah terdapat hubungan bermakna antara diabetes melitus tipe 2 dengan kejadian katarak dengan nilai OR 10, 360. Pada keadaan hiperglikemia, kadar enzim aldose reduktase rendah sehingga sorbitol menumpuk di dalam lensa dan terjadilah kekeruhan lensa. Kesimpulannya, terdapat hubungan bermakna antara diabetes melitus tipe 2 dengan kejadian katarak dan pasien dengan diabetes melitus cenderung berisiko 10 kali lipat terkena katarak dibanding dengan yang non-diabetes melitus.

Kata kunci : katarak, diabetes melitus, hiperglikemia, lensa mata, enzim aldose reduktase

**THE RELATION BETWEEN TYPE 2 DIABETIC WITH
INCIDENT OF CATARACT IN POLY OF EYE RSPAD GATOT
SOEBROTO JAKARTA PERIOD OF JANUARY – DECEMBER
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ABSTRACT

According to WHO 2012, cataract is cause of world's blindness with percentage 51%. Approximately, cataract's incident is 0,1% per year or there is a new cataract patients among 1.000 people in every year. One of factors that causing cataracts is metabolic disease of diabetic. This occurs because the condition of hyperglycemia causes an increase lens' osmotic preassure due to the accumulation of glucose and aquous fluid inside the lens causing turbidity. This research aims to analyze relation between type 2 diabetic with incident of cataract. Design of study is *case control*. Case group are patients diabetic with cataract and control group are patients diabetic without cataract. Amount of samples are 104 people (52 samples for case groups and 52 samples controls). Sampling method is *non-probability sampling* with *purposive sampling technique*. Data was analyze by Chi-Square's test and altenative Fisher's test. The result is there are relation between type 2 diabetic with incident of cataract with odds ratio value is 10,360. This result are appropriate with previous research that said there are relation between incident of cataract with type 2 diabetic and means patient with diabetic are 7 times tend to be more risky to exposed with cataract than patient with non-diabetic. In hyperglycemia condition, aldose reductase levels are low so sorbitol are accumulates inside eye's lens and become cloudy in lens. The conclusions are there is relation between type 2 diabetic with incident of cataract and patients with diabetic are 10 times tend to be more risky to exposed cataract than non-diabetic.

Keyword : cataract, diabetic mellitus, hyperglycemia, eyes's lens, aldose reductase's enzym